



Office of River Protection Hanford Site

Agency Update to
Hanford Advisory Board

September 9, 2010

JD Dowell
Deputy Manager



Office of River Protection



Agenda

- 2010 Accomplishments
- Hanford Advisory Board (HAB)
Advice/Response
- Tank Farm Update
- American Recovery and Reinvestment Act (ARRA)
- Waste Treatment Plant (WTP) Update
- Looking Forward



Office of River Protection Management Team





2010 Accomplishments

- Tank Farms Project
 - Tank Retrievals
 - Mobile Arm Retrieval System (MARS) Phase II testing
 - Infrastructure and facility upgrades – ARRA work
 - Enhanced tank waste strategy
 - Single Shell Tank (SST) Integrity Expert Panel Working Group
- Completed proposed settlement agreement public review and comment period
- Issued Draft Tank Closure and Waste Management Environmental Impact Statement and completed public review and comment period
- Waste Treatment Plant Project
 - Resolved External Flowsheet Review Team technical issues
 - Pivot point to construct, commission and operate
 - Project Alignment
 - WTP construction site Voluntary Protection Program Star status



Response to HAB Advice

Fiscal Year 2010 Responses

- #223 – Life Cycle and Tri-Party Agreement (TPA) Modifications (RL Lead)
- #224 – Proposed Consent Decree and TPA Modifications
- #225 – Updating the TPA Community Relations Plan

Open Fiscal Year 2010 Advice

- #227 – Modeling versus Characterization
- #228 – Independent Review of Beryllium Program (RL Lead)
- #233 – Tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5
- #232 – Selecting Projects for ARRA Funding
- #234 – Fiscal Year 2012 Funding Requests



2010 HAB Advice – ORP Specific

Board 2009 Priority	Advice	Board's Key Points	ORP DRAFT Response
Tank Cleanup and Closure	Advice #227 DOE's Use of Modeling Versus More Characterization	<p>Use characterization data rather than reliance on post-record of decision characterization</p> <p>Models used should reflect reality</p> <p>Selection of the right model is key. Use Sensitivity Analysis to ensure appropriate parameters and reliable modeling results</p> <p>Modeling should be used to guide characterization and define boundary limits</p>	<p>Characterization data along with bounding assumptions is key.</p> <p>HAB's advice is consistent with DOE's priorities.</p> <p>DOE has conducted extensive work to evaluate assumptions and parameters used in modeling.</p> <p>DOE uses a standard practice to bound assumptions and uses confirmatory sampling to verify key assumptions.</p>
	Advice #233 Tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5	<p>Revisions of the SP should include the Baseline Case and any case reflecting technically achievable and legislatively reasonable incremental funding (HAB advice #209)</p> <p>Mitigation options should be identified and included in future SP revisions. Priority should be placed on dealing with mobile contaminants that drive long-term health, safety, and environmental risks.</p> <p>SP and Life Cycle report should use the same assumptions, uncertainties and analysis for common causes</p> <p>Best estimates of design scope, schedule, and costs of facility upgrades should be included in SP revisions</p>	<p>SP 4 committed to addressing an initial planning case, an unconstrained case, and a baseline case. SP 5 cases will be similar SP 4 baseline case.</p> <p>HAB's advice is consistent with DOE's priorities.</p> <p>DOE intends for the planning assumptions to be consistent, to the extend possible, in accordance with specific deliverable requirements.</p> <p>These details are more appropriately addressed in other project-specific documents.</p>



2010 HAB Advice – ORP Specific (cont)

Board 2009 Priority	Advice	Board's Key Points	ORP DRAFT Response
Budgets	Advice #234 Fiscal Year 2012 Funding Requests	<p>Increase original FY 12 request by 500M</p> <p>All funding for ABBs identified should be requested now</p> <p>Adequate funding for LAW supplemental treatment is needed now. Funding from exploring alternative treatments should not detract from funding needed to meet schedule.</p> <p>DOE should develop a five-year IPL, including ARRA projects</p>	<p>HAB's advice is consistent with ORP priorities</p> <p>A decision on how to proceed with the LAW is not needed until at least 2015. Making decision ahead of schedule could potentially offset funding for WTP activities.</p> <p>DOE has no plans to develop a five-year IPL - the annual list will continue to be made publically available</p>
	Advice #232 Selecting Projects for ARRA Funding	<p>Criteria for choosing buy-back projects should emphasize meeting requirements and opportunities to reduce mortgage cost for future cleanup</p> <p>HAB and public should have input on buy-back list of projects and criteria for choice and selection</p> <p>DOE should define, and make publically available, the process for determining projects added to the list and selection criteria</p>	<p>HAB's advice is consistent with DOE priorities. Criteria points are a clear work scope, proper cost estimates and funding, appropriate resources and fully defined and supported schedules.</p> <p>DOE is committed to interacting with stakeholders and the public to ensure compliance. Once approved, buy-back lists will be made publically available.</p>



2010 HAB Advice – ORP Specific (cont)

Board 2009 Priority	Advice	Board's Key Points	ORP DRAFT Response
TPA	Advice #224 Proposed Consent Decree & TPA Modifications	HAB provided 11 detailed advice points	Comments are currently being considered and we will issue response to advice in a response to comment document.
	Advice #225 Updating the TPA Community Relations Plan (CRP)	HAB provided detailed advice on content, structure, technical and mechanical aspects of the CRP	While not all advice will be implemented, HAB's advice is valuable and helps the TPAs improve the CRP.



Tank Farms Progress: Retrievals



Retrieval Construction



Retrieval Construction

- C-104 Retrieved 75% of tank waste
- C-111 Retrieval starts next week
- C-112 Design and construct system
- C-108 Construct hard heel retrieval system
- C-110 Select hard heel technology
- C-107 Install new sluicing system (first MARS deployment)



Tank Farms Progress: Retrieval Tools

Mobile Arm Retrieval System (MARS)

- Vacuum / Eductor

Enhanced Reach Sluicing System (ERSS)

Mobile Retrieval Tool (FoldTrack – Revision 1)





Tank Farm Progress: Infrastructure

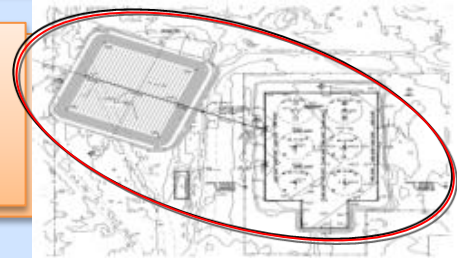


C-Farm Projects/Enhancement

- **Stack upgrades** – add a 23' extension to two ventilation systems in C-Farm to reduce vapor exposures to As Low as Reasonably Achievable (ALARA)

Installed TY Farm Interim Surface Barrier

- Barrier Area ~ 80,500 square feet (1.8 acres)
- Evapotranspiration Basin ~ 71,300 square feet (1.6 acres)



Started Evaporator Campaigns

- Expected to create at least 240,000 gallons of double shell tank space for continued retrievals from single shell tanks.
- Performed Waste Transfers
- Completed Wiped Film Evaporator small-scale design and simulant testing



Waste Feed Transfer Lines Upgrade

- Completed 100% design of new lines and refurbishment of old lines in March
- Construction began in June



Tank Farm Challenges

- Reduce lifecycle cost and savings
 - Enhanced tank waste strategies
 - Technology development and deployment
- Aging infrastructure
 - ARRA
- Increase Tank Farm Operational Readiness
 - Improve Conduct of Operations
 - Retrieval transition





American Recovery and Reinvestment Act

Total: \$326M

Spent to Date: \$140.6M

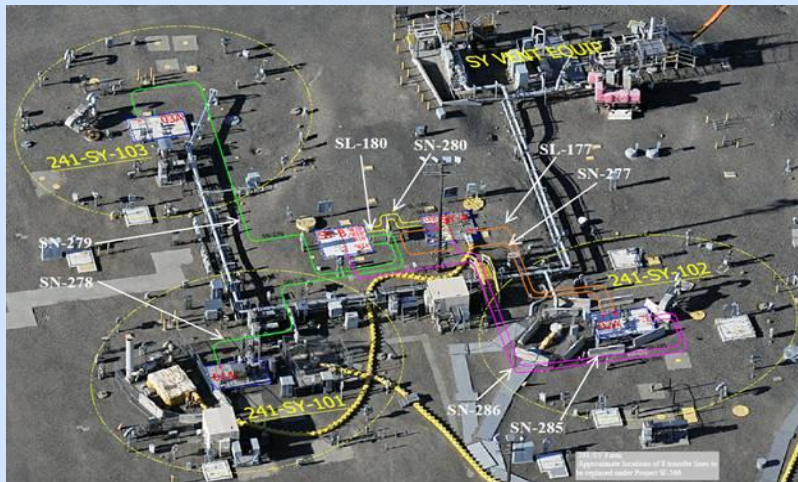
Total FTEs: 477

ORP Mission Benefits from ARRA

- Infrastructure upgrades to complete mission
- Ensure reliable & predictable waste feed for WTP operations in 2019

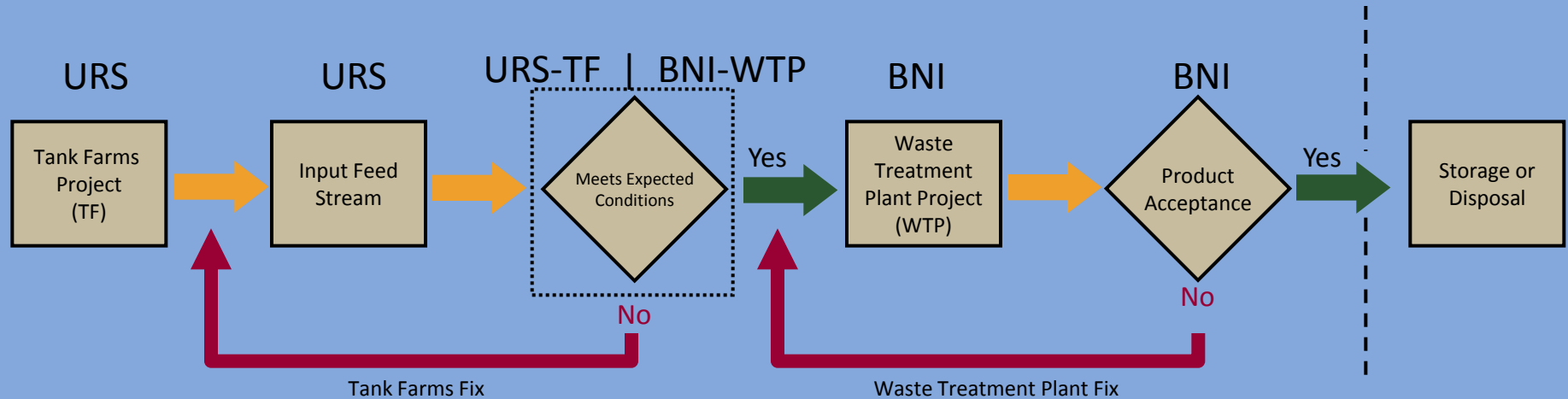


Evapotranspiration basin for TY Barrier project gets liner system



241 SY Farm Transfer Line Upgrade Project – replacement of 8 non-RCRA compliant lines

Integrated Management Flow Sheet



Tank Farms and WTP contractors integrate to provide robust operation at WTP

July 2010

Overall design = 80% complete Overall construction = 52% complete
2,100 Professional Staff 825 Craft Workers 250 Subcontractors 3,175 Total Staff



2016 Commissioning Status



Analytical Laboratory

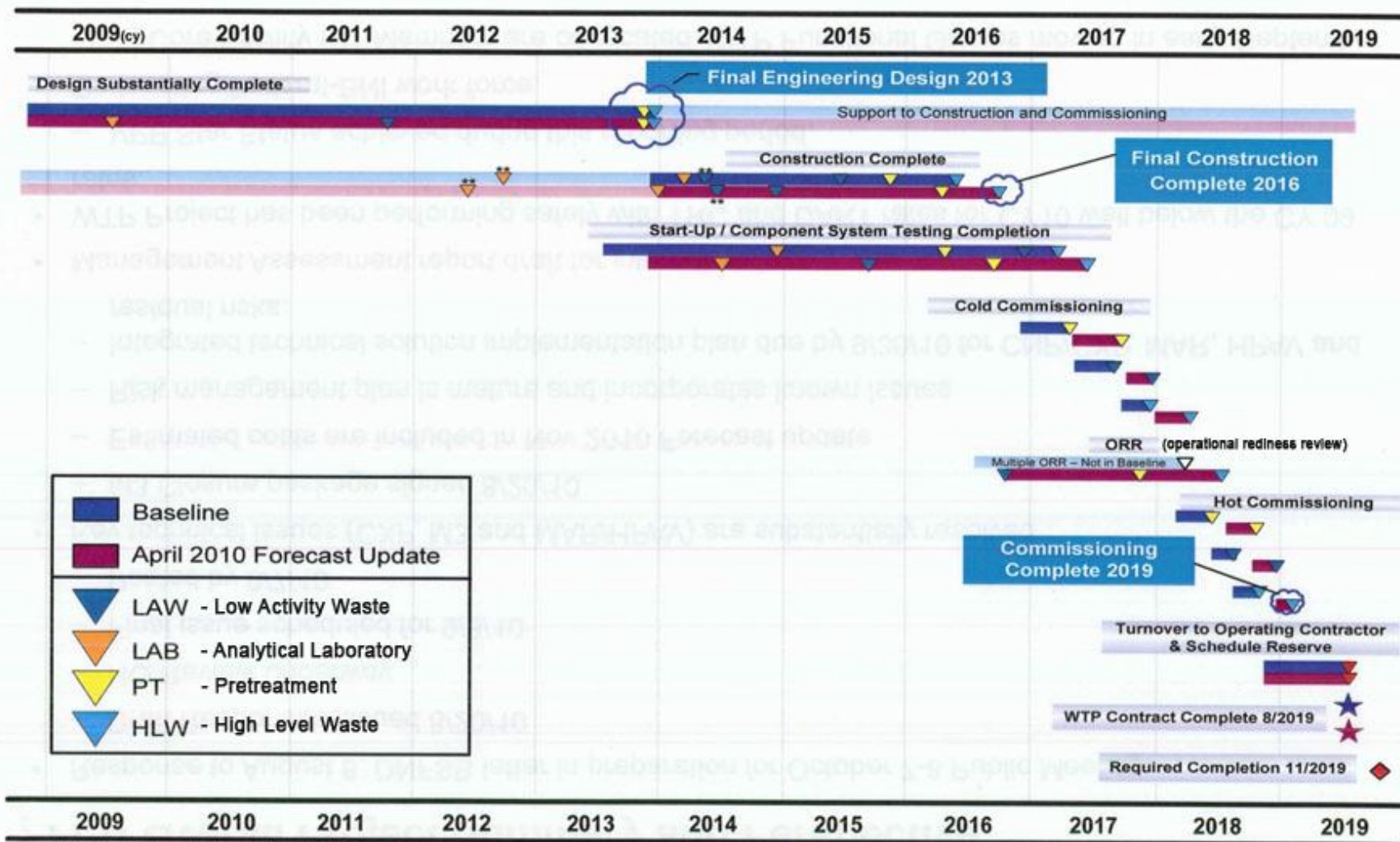
Low-Activity Waste Facility

High-Level Waste Facility

Pretreatment Facility



WTP Management Summary Schedule



** Indicates Construction Substantially Complete



Looking Forward

- Tank Farms
 - Finish strong on ARRA
 - Continue to improve retrieval
 - Technologies
 - Contractor performance
 - Mature the tank waste strategy
 - Focus on technology development
 - Improve performance
 - Deliver long-term efficiencies
- WTP
 - Focus on construct/commission
 - Complete design
 - Integrate Tank Farms and WTP to prepare for operations
 - Accelerate funding profile to reduce risk and ensure operations success
- Proposed Consent Decree and Tri-Party Agreement Modifications
- Draft Tank Closure and Waste Management Environmental Impact Statement